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10/624,276	07/22/2003	Eric Christensen	200208833-1	7482

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EXAMINER	
MILIA, MARK R	
ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
07/02/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/624,276	CHRISTENSEN, ERIC	
	Examiner	Art Unit	
	Mark R. Milia	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10,12-15,25 and 27-39* is/are pending in the application.

4a) Of the above claim(s) *16-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,10,12-15,25 and 27-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 July 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 3/21/08 and has been entered and made of record. Currently, claims 1-8, 10, 12-15, 25, and 27-39 are pending.

Drawings

2. The drawings were received on 3/21/08. These drawings are accepted. The amendment to Fig. 2 has overcome the objection set forth in the previous Office Action. Therefore the objection has been withdrawn.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 4, reference character **436**. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. Applicant's amendment to the specification to change all the recitations of the reference numeral **200** to **202** spanning line 21 of page 7 to line 9 of page 8 seems to be inconsistent with the rest of the specification and with Fig. 2 to which the above section references. All the reference numerals **202** should be changed back to **200** and on page 7, line 22, the reference numeral **250** should be changed to **252**. Therefore the specification is objected to because of the above reason.

Claim Rejections - 35 USC § 112

5. Applicant's cancellation of claim 11 and the amendment to claim 14 overcome the rejection set forth in the previous Office Action. Therefore the rejection has been withdrawn.

Double Patenting

6. Applicant's amendment to claim 1 and 35 has overcome the rejection set forth in the previous Office Action. Therefore the rejection has been withdrawn.

Response to Arguments

7. Applicant's arguments filed 3/21/08 have been fully considered but they are not persuasive.

Applicant assets that Hirst (US 5,930,553) fails to teach or suggest a replaceable printing device component storing a patch load routine and a printing device that is configured to download and execute the patch load routine, as set forth in the current amendment to claims 1, 25, and 35. The examiner respectfully disagrees as Hirst does disclose such features. Particularly, Hirst discloses an image forming device consumable having a nonvolatile memory device which includes programming instructions to update the functionality of the image forming device (see column 6 lines 33-34 and 51-58). The programming instructions to update the functionality of the image forming device represent a patch load routine as they control the way in which the firmware patch is uploaded to the image forming device. Hirst further discloses microcomputers **30** for controlling different functions of the image forming device which download software patches (firmware patches) from consumable memory device **19** when the consumable memory device is installed in the image forming device (see Fig.

5 and column 5 line 45-column 6 line 3). Therefore, Hirst discloses a replaceable printing device component storing a patch load routine and a printing device that is configured to download and execute the patch load routine, as set forth in the currently amended claims 1, 25, and 35.

Claim Rejections - 35 USC § 102

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1-6, 8, 10, 12-14, 25-28, 32-33, 35-36, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S Patent No. 5,930,553 to Hirst et al.

Regarding claim 1, Hirst discloses a priming device system comprising: a replaceable printing device, component storing a firmware patch for a printing device and a patch load routine, the replaceable printing device component being configured to be coupled to the printing device (see Figs. 1 and 2, column 4 lines 45-49, and column 5 lines 19-23), and a printing device having a memory unit storing firmware, the printing device being configured to download and execute the patch load routine (see Fig. 5 and column 5 line 42-column 6 line 12), wherein the patch load routing includes instructions that when executed cause the printing device to determine if the firmware patch stored on the replaceable printing device component has previously been used to patch the firmware and, upon a determination that the firmware patch has not been previously

used to patch the firmware, loading the firmware into the memory unit to patch the firmware (see column 5 line 54-column 6 line 3 and column 6 lines 51-58).

Regarding claim 25, Hirst discloses a priming device comprising: a memory unit to store firmware (see Fig. 1 (**17**) and column 6 lines 3-5), a processing unit coupled to the memory unit (see Fig. 1 (**13**) and column 4 lines 26-27), and a routine stored in the memory unit to download a patch load routine from the coupled replaceable printing device component, wherein the processing unit is operable to execute the patch load routine downloaded to the memory and wherein the patch load routine includes instructions that when executed cause the processing unit to determine if a firmware patch stored on the coupled replaceable printing device component has previously been used to patch the firmware and, upon a determination that the firmware patch has not been previously used to patch the firmware, load the firmware in to the memory unit to patch the firmware.(see Figs. 1 and 2, column 4 lines 45-49, column 5 lines 19-23, column 5 line 54-column 6 line 3, and column 6 lines 51-58).

Regarding claim 35, Hirst discloses a method comprising: with a replaceable printing device component coupled to a printing device, downloading, from the replaceable printing device component, a patch load routine to a memory of the printing device (see Figs. 1 and 2, column 4 lines 45-49, and column 5 lines 19-23 and 42-65) and executing the patch load routine on the printing device to cause the printing device to determine if a firmware patch stored on the replaceable printing device component has previously been used to patch firmware of the printing device and, upon a determination that the firmware patch has not been previously used to patch the

firmware, downloading the firmware to patch the firmware of the printing device. (see Figs. 1, 2 and 5, column 4 lines 45-49, column 5 lines 19-23, column 5 line 54-column 6 line 3, and column 6 lines 51-58).

Regarding claim 2, Hirst further discloses wherein the replaceable printing device component comprises a memory unit and the printing device firmware patch is stored in the memory unit (see Figs. 1 and 2, column 4 lines 45-49, column 5 lines 19-23, and column 5 line 54-column 6 line 3).

Regarding claim 3, Hirst further discloses wherein the replaceable printing device component comprises terminals, the printing device comprises a computing unit and a coupled communication link, and the terminals are operable to couple to the communication link, such that the replaceable printing device component memory unit couples to the printing device computing unit (see Figs. 1-3, column 4 lines 45-49, column 5 lines 19-23, and column 5 line 54-column 6 line 3).

Regarding claim 4, Hirst further discloses wherein the printing device comprises a computing unit that is operable to couple to the replaceable printing device component memory unit, the printing device computing unit is configured to read the memory unit, and the replaceable printing device component memory unit is configured to be read by the computing unit (see Figs. 1-3, column 4 lines 45-49, column 5 lines 19-23, and column 5 line 54-column 6 line 3).

Regarding claim 5, Hirst further discloses wherein the replaceable printing device component is further storing data indicating where to load the firmware patch on a memory of the printing device (see column 5 lines 25-27 and 43-65).

Regarding claim 6, Hirst further discloses wherein the replaceable printing device component is further storing data identifying a type of memory on which the firmware patch is to be loaded in the printing device (see column 5 lines 43-65).

Regarding claims 8 and 36, Hirst further discloses wherein the printing device comprises a non-volatile reprogrammable memory, and the printing device is configured to patch the firmware patch on the non-volatile reprogrammable memory when the firmware is stored on the non-volatile reprogrammable memory (see column 5 lines 54-65).

Regarding claim 10, Hirst further discloses wherein the printing device comprises a volatile RAM, and the printing device is configured to patch the firmware when the firmware is stored on the volatile RAM (see Fig. 3 and column 5 lines 25-27 and 43-48).

Regarding claim 12, Hirst further discloses wherein the printing device is configured to check for firmware patches available from the replaceable printing device component (see column 4 lines 45-67 and column 5 lines 54-65).

Regarding claim 13, Hirst further discloses wherein the printing device is configured to read data associated with the firmware patch, and apply the firmware patch according to the data (see Figs. 1 and 2, column 4 lines 45-49, column 5 lines 19-23, and column 5 line 54-column 6 line 3).

Regarding claim 14, Hirst further discloses wherein the printing device is configured to verify whether the media storing the firmware is compatible with the firmware patch (see column 4 lines 45-67 and column 5 lines 54-65).

Regarding claim 27, Hirst further discloses wherein the patch load routine, when executed, causes the processing unit to read data associated with the firmware patch, and to load the firmware in to the memory unit to patch the firmware according to the data (see column 5 lines 19-23 and 45-65 and column 6 lines 51-58).

Regarding claim 28, Hirst further discloses wherein the data includes at least one of version data, printing device memory type data, and memory location (see Fig. 2 and column 5 lines 19-23).

Regarding claim 32, Hirst further discloses wherein the memory unit comprises a media including at least one of a volatile RAM and a non-volatile reprogrammable memory (see Fig. 3 and column 5 lines 43-48).

Regarding claims 33 and 38, Hirst further discloses wherein patch load routine, when executed, causes the processing unit to operable to: load the firmware patch into the reprogrammable non-volatile memory of the printing device if the firmware is to execute from the reprogrammable non-volatile memory and load the firmware patch into the volatile RAM of the printing device if the firmware is to execute from the volatile RAM (see Fig. 3 and column 5 lines 25-27, 43-48, and 54-65).

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 7, 15, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst as applied to claims 1, 25, and 35 above, and further in view of Japanese Patent Document No. 2002-166628 to Tanaka et al. Reference will be made to the attached English machine translation.

Regarding claim 7, Hirst does not disclose expressly wherein the replaceable printing device component is further storing data identifying a version of the firmware patch.

Tanaka discloses wherein the replaceable printing device component is further storing data identifying a version of the firmware patch (see paragraphs 14, 24-25, and 45-55).

Regarding claim 15, Hirst does not disclose expressly wherein the replaceable printing device component stores data indicating the version of the firmware patch and the printing device is configured to verify whether the version of the firmware patch is compatible with the firmware.

Tanaka discloses wherein the replaceable printing device component stores data indicating the version of the firmware patch and the printing device is configured to verify whether the version of the firmware patch is compatible with the firmware (see paragraphs 14, 24-25, and 45-55).

Regarding claim 39, Hirst does not disclose expressly reading from said replaceable printing device a printing device firmware versions to which the printing device firmware patch stored on the replaceable printing device component is applicable, and downloading the firmware to patch the firmware on the printing device

comprises downloading the firmware to the printer only if a version of the printing device firmware is one of the versions to which the printing device firmware patch stored on the replaceable printing device component is applicable.

Tanaka discloses reading from said replaceable printing device a printing device firmware versions to which the printing device firmware patch stored on the replaceable printing device component is applicable, and downloading the firmware to patch the firmware on the printing device comprises downloading the firmware to the printer only if a version of the printing device firmware is one of the versions to which the printing device firmware patch stored on the replaceable printing device component is applicable (see paragraphs 14, 24-25, and 45-55).

Hirst & Tanaka are combinable because they are from the same field of endeavor, a memory module storing firmware attached to a printing device consumable.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the identifying and verifying of a version of the firmware, as described by Tanaka, with the system of Hirst because it is known in the art when downloading updates to an application to check the version to make sure it is a later released version than the version already being used. It is common for companies to release new versions of their applications periodically to fix problems or to enhance features of the application and when a user is to install the application, the version information is queried to make sure the application will run on the user's system and that it is actually and upgrade from the version currently running on the system.

Therefore, it would have been obvious to combine Tanaka with Hirst to obtain the invention as specified in claims 7, 15, and 39.

12. Claims 29-31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst as applied to claim 27 above, and further in view of Tanaka.

Regarding claim 29, Hirst does not disclose expressly wherein the patch load routine, when executed, causes the processing unit to operable to read the data to verify whether the firmware patch is appropriate for patching the firmware.

Tanaka discloses wherein the patch load routine, when executed, causes the processing unit to operable to read the data to verify whether the firmware patch is appropriate for patching the firmware (see paragraphs 14, 24-25, and 45-55).

Hirst & Tanaka are combinable because they are from the same field of endeavor, a memory module storing firmware attached to a printing device consumable.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the verifying of the firmware patch, as described by Tanaka, with the system of Hirst.

The suggestion/motivation for doing so would have been to ensure proper compatibility and thereby decrease the possibility of incorrect firmware patches and system inoperability.

Therefore, it would have been obvious to combine Tanaka with Hirst to obtain the invention as specified in claim 29.

Regarding claim 30, Tanaka further discloses wherein the memory unit comprises media to store the firmware and wherein the verifying comprises verifying whether the media storing the firmware is compatible with the software object (see paragraphs 14, 24-25, and 45-55).

Regarding claim 31, Tanaka further discloses wherein the replaceable printing device component stores data indicating a version of the software object and verifying comprises verifying whether the version of the software object is compatible with the firmware (see paragraphs 14, 24-25, and 45-55).

Regarding claim 34, Tanaka further discloses wherein the data includes printing device firmware versions to which the printing device firmware patch stored on the replaceable printing device component is applicable, and the patch load routine, when executed, causes the processing unit to operable to load the firmware patch into the memory unit to patch the firmware only if a version of the firmware is one of the versions to which the printing device firmware patch stored on the replaceable printing device component is applicable (see paragraphs 14, 24-25, and 45-55).

13. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst as applied to claim 36 above, and further in view of Tanaka.

Hirst does not disclose expressly resetting the printing device after the patching action.

Tanaka discloses resetting the printing device after the patching action (see paragraph 59).

Hirst & Tanaka are combinable because they are from the same field of endeavor, a memory module storing firmware attached to a printing device consumable.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the resetting of the printing device after patching the firmware, as described by Tanaka, with the system of Hirst.

The suggestion/motivation for doing so would have been to ensure the system is ready and able to identify and verify a new version of firmware and allow patching of the newer version of firmware.

Therefore, it would have been obvious to combine Tanaka with Hirst to obtain the invention as specified in claim 37.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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